PK538 (v1.1) January 11, 2011

100% Material Declaration Data Sheet for Spartan®-3/-3E/-3A FGG1156 (Cu Wire) Package

Average Weight: 5.600 g

Component	Substance Description	CAS# or Description	% of Component	Use in Product	Component Weight/ Substance Weight (in grams)	Component % of Total
Silicon Die					**0.107655**	**1.922**
	Silicon	7440-21-3	100.00		0.107655	
Die Attach Material					**0.018830**	**0.336**
	Silver (Ag)	7440-22-4	77.50		0.014593	
	Bismaleimide monomer	Trade Secret	15.00		0.002825	
	Acrylate monomer	Trade Secret	7.50		0.001412	
Mold Compound					**2.440605**	**43.582**
	Solid Epoxy Resin	Trade Secret	5.00		0.122030	
	Phenol Resin	Trade Secret	3.00		0.073218	
	Phenol Novolac	9003-35-4	3.00		0.073218	
	Metal Hydroxide	Trade Secret	3.00		0.073218	
	Carbon Black	1333-86-4	0.30		0.007322	
	Silica fused	60676-86-0	70.40		1.718186	
	Silica fused	7631-86-9	15.00		0.366091	
	Silica, crystalline	14808-60-7	0.30		0.007322	
Copper Wire					**0.036344**	**0.649**
	Copper (Cu)	7440-50-8	97.28		0.035355	
	Palladium	7440-05-3	2.70		0.000981	
	Impurities	NA	0.02		0.000007	
Solder Balls					**1.100277**	**19.648**
	Tin (Sn)	7440-31-5	95.50		1.050765	
	Silver (Ag)	7440-22-4	4.00		0.044011	
	Copper (Cu)	7440-50-8	0.50		0.005501	

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Component	Substance Description	CAS# or Description	% of Component	Use in Product	Component Weight/ Substance Weight (in grams)	Component % of Total
Substrate					**1.896289**	**33.862**
	Copper (Cu)	7440-50-8	43.23		0.819844	
	Gold (Au)	7440-57-5	0.35		0.006726	
	Nickel (Ni)	7440-02-0	1.64		0.031042	
	Copper Foil	7440-50-8	6.58		0.124782	
	BT (core)	Trade Secret 21645-51-2 105391-33-1 25722-66-1 9003-36-5 21645-51-2	41.60		0.788874	
	Solder mask	Trade Secret 14807-96-6 7727-43-7 7631-86-9 34590-94-8 85954-11-6	6.59		0.125023	

Revision History

The following table shows the revision history for this document.

Date	Version	Description of Revisions
11/15/11	1.0	Initial Xilinx release.
01/11/12	1.1	CAS# update.

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